UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,191	01/28/2004	Fumio Takahashi	8017-1123	9841

466   7590   12/05/2006

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EXAMINER
ALPHONSE, FRITZ

ART UNIT	PAPER NUMBER
2133	

DATE MAILED: 12/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *28 January 2004*.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16 and 18* is/are rejected.

7) ☒ Claim(s) *17* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *28 January 2004* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

    1. ☒ Certified copies of the priority documents have been received.

    2. ☐ Certified copies of the priority documents have been received in Application No. _____.

    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-16, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ng (U.S.

Pat. No. 6,609,225) in view of DeSouza (U.S. Pat. No. 5,379,289).

As to claim 1, Ng discloses method of generating a CRC code to determine a variable

field value for equalizing a CRC value comprising establishing a temporary variable field value

(fig. 4A; col. 3, lines 47-60); reading all corrective values which correspond to a bit number

where a bit value of said temporary variable field value is 1, from a table which stores therein

corrective values for indicating a bit to be inverted in the variable field value as "1"

corresponding to a predetermined bit number, and exclusive-ORing the read corrective values to

calculate a first calculated value (fig. 3; col. 5, lines 48 through col. 6 line 9; col. 7, lines 65

through col. 8 line 7). Ng (fig. 4 B) and determining, when said first calculated value

corresponds to the desired CRC value, said temporary variable field value to be a variable field

value for obtaining the desired CRC value (col. 8, lines 61 through col. 9 line 8).

Ng does not explicitly disclose a "conversion table". However, using a correction table

for storing corrective values are obvious and well known in the art, as evidenced by Mizukami

(fig. 1; col. 5, lines 45-57).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time of the invention to incorporate into Ng' apparatus a conversion table, as disclosed by Mizukami. Doing so would provide a data transmission device which is capable of reducing an amount of hardware which is used for adaptively varying a packet size or a data size (col. 2, lines 8-11).

As to claim 7, Ng discloses a method of generating a CRC code to determine a variable field value for equalizing a CRC value, comprising establishing a temporary variable field value (fig. 4A; col. 3, lines 47-60); reading a first calculated value corresponding to said temporary variable field value from a table which stores therein first calculated values corresponding to a variable field value X and produced by exclusive-ORing a CRC value where the variable field value is 0 and a CRC value where the variable field value is X (fig. 3; col. 5, lines 48 through col. 6 line 9; col. 7, lines 65 through col. 8 line 7). Ng (fig. 4 B); and determining, when the read first calculated value corresponds to the desired CRC value, said temporary variable field value to be a variable field value for obtaining the desired CRC value (col. 8, lines 61 through col. 9 line 8).

Ng does not explicitly disclose a "conversion table". However, using a correction table for storing corrective values are obvious and well known in the art, as evidenced by Mizukami (fig. 1; col. 5, lines 45-57). See the motivation for the same reason disclosed in claim 1 above.

As to claims 8-9, Ng (fig. 2B) discloses a table (lookup table 285) which stores data of said first calculated values corresponding to said variable field value X and has a high-order address represented by a bit length of the data field and a low-order address represented by the variable field value X; the table which stores data of said first calculated values corresponding to said variable field value X and has a high-order address represented by the generator polynomial

and a bit length of the data field and a low-order address represented by the variable field value X (col. 7, lines 10-31).

Ng does not explicitly disclose a "conversion table". However, using a correction table for storing corrective values are obvious and well known in the art, as evidenced by Mizukami (fig. 1; col. 5, lines 45-57). See the motivation for the same reason disclosed in claim 1 above.

As to claims 10-12, 14-15, Ng discloses a method, including comparing a calculated value which is calculated in advance by exclusive-ORing a CRC value where the variable field value is 0 and the desired CRC value, with a first calculated value (col. 1, lines 36-54); and determining a temporary variable field value corresponding to said first calculated value as a variable field value for obtaining said desired CRC value if said first calculated value and said second calculated value agree with each other (fig. 3; col. 5, lines 48 through col. 6 line 9). Ng (fig. 2B) discloses a table (lookup table 285) which stores data of said first calculated values corresponding to said variable field value X and has a high-order address represented by a bit length of the data field and a low-order address represented by the variable field value X (col. 7, lines 10-31).

As to claims 13,16 and 18, the claims have substantially the limitations of claims 1 and 7; therefore, they are analyzed as previously discussed in claims 1 and 7 above.

Allowable Subject Matter

3.   Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. See PTO-892

Any response to this action should be mailed to: .

Commissioner of Patents and Trademarks, Washington, D.C. 20231

or faxed to: (703) 872-9306 for all formal communications.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The

examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at
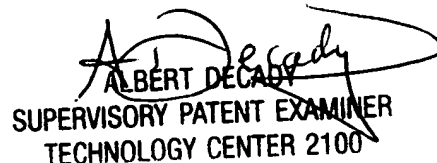
(571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may also be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fritz Alphonse

Art Unit 2133

November 24, 2006

ALBERT DE CADY
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